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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/588,184

03/17/2008

Stephan Wienand

3808

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7590

01/19/2012

MICHAEL J. STRIKER
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EXAMINER

CHU, RANDOLPH I

ART UNIT

PAPER NUMBER

2624

NOTIFICATION DATE

DELIVERY MODE

01/19/2012

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

striker@strikerlaw.com

Office Action Summary	Application No. 10/588,184	Applicant(s) WIENAND ET AL.	
	Examiner RANDOLPH I. CHU	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/9/2012.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7 and 9-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7 and 9-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Response to Argument

2. Applicant's arguments filed on 1/9/2012 have been considered but they are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- A. Claims 1, 3, 6, 10 and 11 are rejected under 35 USC 103(a) as being unpatentable over Kosaka et al. (US Patent 6,724,930) in view of Yoronka et al. (US 2001/0024512).

With respect to claim 1 and 10, Morimoto et al. teach simultaneously recording at least three measurement characteristics (markers) of the object in an image by an optical recording device (image input mean) (Fig. 8, image acquisition apparatus) calibrated to a space coordinate system (col. 2 lines 32-42),

on the basis of these measurement characteristics, determining the position of the object in the space coordinate system in an image processing device, wherein a moveable recording device is used, wherein the at least three measurement characteristics of the object in different spatial positions are recorded and evaluated (col. 2 lines 43-49) (Fig. 8), and wherein no more than five measurement characteristics are evaluated simultaneously (col. 2 lines 25-26),

Morimoto et al. do not teaches expressly that wherein a position of the recording device is selected such that for determining the position of the object, suitable measurement characteristics optimally cover a sensitive area of the recording device by intermediate angles of visual rays from the measurement characteristics to the photographic device that are greater than 10 degrees.

Yoronka et al. teach expressly that wherein a position of the recording device is selected such that for determining the position of the object, suitable measurement characteristics optimally cover a sensitive area of the recording device by intermediate angles of visual rays from the measurement characteristics to the photographic device that are greater than 10 degrees (Para. [0035], CCD cameras with a field of view of 45 degrees).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use lens wider than 10 degrees in the method of Morimoto et al.

The suggestion/motivation for doing so would have been that in order to acquire wide angle of image.

Therefore, it would have been obvious to combine Yoronka et al. with Morimoto et al. to obtain the invention as specified in claims 1 and 10.

With respect to claim 3, Kosaka et al. teach that that the measurement characteristics are marked points (markers) (col. 2 lines 32-42).

With respect to claim 6, Kosaka et al. teach that that a stationary and/or movable recording device is used (col. 4 lines 59-63, general TV camera or digital video camera).

With respect to claim 11, Kosaka et al. teach that that before the method is employed, the coordinates of the measurement characteristics are learned in an object coordinate system, in that the object is recorded in a plurality of known positions by the recording device (col. 2 lines 32-46).

B. Claims 4 and 5 are rejected under 35 USC 103(a) as being unpatentable over Kosaka et al. (US Patent 6,724,930) in view of Yoronka et al. (US 2001/0024512) and in further view of Mattsson (US 2003/0076293).

With respect to claim 4, Kosaka et al. and Yoronka et al. teach all the limitations of claim 1 as applied above from which claim 4 respectively depend.

Kosaka et al. and Yoronka et al. do not teaches expressly a plurality of recording devices are used (Fig. 5 ref label 53)

Mattsson teaches that that a plurality of recording devices are used (Fig. 5 ref label 53) (Fig. 7, para [0062]).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to measure position of the object using a plurality of recording devices in the method of Kosaka et al. and Yoronka et al.

The suggestion/motivation for doing so would have been that in order to measure accurate position of mark in 3 dimensional spaces.

Therefore, it would have been obvious to combine Mattsson with Kosaka et al. and Yoronka et al. to obtain the invention as specified in claim 4.

With respect to claim 5, Mattsson teaches that that one measurement characteristic is reproduced in a plurality of recording devices (Table in para [0085]).

C. Claims 7 and 12 are rejected under 35 USC 103(a) as being unpatentable over Kosaka et al. (US Patent 6,724,930) in view of Yoronka et al. (US 2001/0024512) and in further view of Sabe et al. (US 2004/0013295).

With respect to claim 7, Kosaka et al. and Yoronka et al. teach all the limitations of claim 6 as applied above from which claim 7 respectively depend.

Kosaka et al. and Yoronka et al. do not teaches expressly that a movable recording device, after a motion, the position of the recording device in the space coordinate system is determined.

Sabe et al. teaches a movable recording device, after a motion, the position of the recording device in the space coordinate system is determined.

(Fig. 7, para [0062]).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to, the position of the recording device in the space coordinate system in the method of Kosaka et al. and Yoronka et al.

The suggestion/motivation for doing so would have been that in order to calculate relative position, camera coordinate system and system (space) coordinate need to be synchronized.

Therefore, it would have been obvious to combine Sabe et al. with Kosaka et al. and Yoronka et al. to obtain the invention as specified in claim 7.

With respect to claim 12, Sabe et al. teaches in that the selection of measurement characteristics to be detected by a recording device, the position of the recording device, and/or the focal length of the recording device is determined automatically (Fig. 7, para [0062]).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RANDOLPH I. CHU whose telephone number is (571)270-1145. The examiner can normally be reached on Monday to Thursday from 7:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vu Le can be reached on 571-272-7332. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/RANDOLPH I CHU/

Primary Examiner, Art Unit 2624